

Notice of Allowability

Application No.

09/849,719

Examiner

Huyen X. Vo

Applicant(s)

CHANG, KENNETH H.P.

Art Unit

2655

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/8/2005.
2. ☒ The allowed claim(s) is/are 1, 5-11, 14, and 18, now amended 1-10.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

W. R. YOUNG
PRIMARY EXAMINER

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's representative, Mr. David Millers, on 11/28/2005. The application has been amended as follows:

Claims 3-4, 12-13, and 17 have been cancelled.

Claim 18 has been amended to depend on claim 14.

Claims 1 and 14 have been amended as follows:

1. An apparatus containing a data structure representing a presentation, the data structure comprising:

a first audio channel representing an audio portion of the presentation after time scaling by a first time scale factor, wherein the first audio channel comprises a plurality of frames;

a second audio channel representing the audio portion after time scaling by a second time scale factor that differs from the first time scale factor, wherein the second audio channel comprises a plurality of frames that are in one-to-one correspondence

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with the plurality of frames in the first audio channel, and corresponding frames in the first and second audio channels represent the same time interval of the presentation;

wherein each frame in the first audio channel is separately compressed using a first compression method; and

wherein the data structure further comprises a third audio channel representing the audio portion of the presentation after time scaling by the first time scale factor, wherein each frame in the third audio channel is separately compressed using a second compression method.

14. A method for encoding audio data, comprising:

performing a plurality of time scaling processes on the audio data to generate a plurality of time-scaled audio data sets, each time-scaled audio data set having a different time scale factor;

partitioning each time-scaled audio data set into a plurality of frames, wherein all frames resulting from the partitioning correspond to the same amount of time in the audio data;

separately compressing each frame to produce compressed frames; and

collecting the compressed frames into a plurality of audio channels that form a data structure, each audio channel having a corresponding one of the different time scale factors;

wherein separately compressing each frame comprises applying a plurality of different compression processes to generate a plurality of compressed frames from each frame.

Allowable Subject Matter

2. Claims 1, 5-11, 14, and 18 are allowed over prior art of record. The following is an examiner's statement of reasons for allowance: Gupta et al. disclose representing a presentation, the data structure comprising: a first audio channel representing an audio portion of the presentation after time scaling by a first time scale factor, wherein the first audio channel comprises a plurality of frames, and a second audio channel representing the audio portion after time scaling by a second time scale factor that differs from the first time scale factor (*referring to Gupta reference*). Gupta et al. also disclose the steps of performing a plurality of time scaling processes on the audio data to generate a plurality of time-scaled audio data sets, each time-scaled audio data set having a different time scale factor, generating a data structure containing a plurality of audio channels respectively corresponding to the plurality of time scaling processes, wherein content of each of the audio channels is derived from the time-scaled audio data set resulting from performing the corresponding time scaling process on the audio data (*referring to Gupta reference*). Taniguchi et al. disclose an audio reproducing apparatus comprises: audio decoding means for decoding an input audio signal frame by frame; data expanding/compressing means for subjecting data in a decoded frame to time-scale modification process; a frame sequence table which contains a sequence

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determined according to a given speed rate in which respective frames are expanded/compressed; frame counting means for counting the number of frames of the input audio signal; and data expansion/compression control means for instructing the data expanding/compressing means to subject the frame to one of time-scale compression process, time-scale expansion process, and process without time-scale modification process, with reference to the frame sequence table based on a count value output from the frame counting means, the data expanding/compressing means subjecting the audio signal to time-scale modification process in accordance with an instruction signal from the data expansion/compression control means (*referring to Taniguchi reference*). Both Gupta et al. and Taniguchi et al. fail to specifically disclose that the first channel and second channel contain audio frames that are one-to-one correspondence with each other, and corresponding frames in the first and second audio channels represent the same time interval of the presentation, and wherein the data structure further comprises a third audio channel representing the audio portion of the presentation after time scaling by the first time scale factor, wherein each frame in the third audio channel is separately compressed using a second compression method. Furthermore, it would have not been obvious to one of ordinary skill in the art at the time of invention to modify Gupta et al. and/or Taniguchi et al. in order to obtain the claimed invention. Therefore, claims 1, 5-11, 14, and 18 are allowed over prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably

accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wayne Young can be reached on 571-272-7582. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HXV

11/28/2005


W. F. YOUNG
PRIMARY EXAMINER